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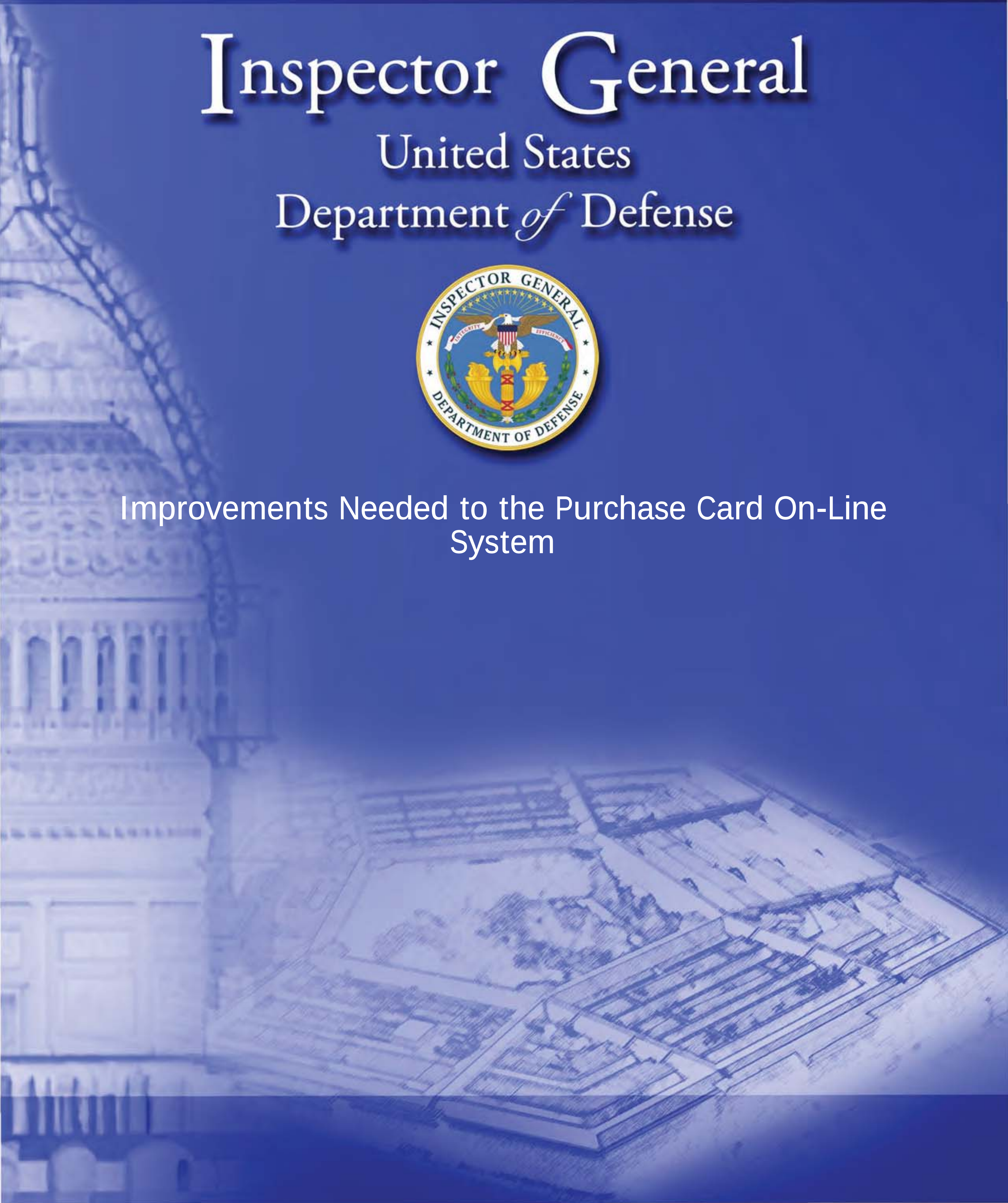
March 27, 2013

Inspector General

United States
Department of Defense



Improvements Needed to the Purchase Card On-Line System

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Acronyms and Abbreviations

A/BO	Approving/Billing Official
DMRA	Data Mining and Risk Assessment
DPAP	Defense Procurement and Acquisition Policy
GPC	Government Purchase Card
PCOLS	Purchase Card On-Line System
PCPO	Purchase Card Policy Office
U.S.C.	United States Code

INSPECTOR GENERAL
DEPARTMENT OF DEFENSE
4800 MARK CENTER DRIVE
ALEXANDRIA, VIRGINIA 22350-1500

March 27, 2013

MEMORANDUM FOR UNDER SECRETARY OF DEFENSE FOR ACQUISITION, TECHNOLOGY, AND LOGISTICS

SUBJECT: Improvements Needed to the Purchase Card On-Line System (Report No. DODIG-2013-061)

We are providing this report for your information and use. No written response to this report was required, and none was received. However, informal comments from management on a discussion draft were considered in preparing the report. We are publishing this report in final form. The Director of Program Development and Implementation, Defense Procurement and Acquisition Policy, Office of the Under Secretary of Defense (Acquisition, Technology, & Logistics), requested this audit. Our objective was to determine whether Department of Defense Approving/Billing Officials adequately reviewed transactions that the Purchase Card On-Line System referred for being at-risk of noncompliance with applicable laws and criteria.

Neither we nor the Defense Procurement and Acquisition Policy could use the Purchase Card On-Line System to assess and determine whether DoD Approving/Billing Officials adequately reviewed 32,690 transactions that the system referred (during the period January through June 2012) as being at-risk of noncompliance with applicable laws and criteria, including lost and stolen cards.

When we requested information to conduct the audit, the Defense Procurement and Acquisition Policy office became aware the automated system lacked the capability to produce the data needed to complete the assessment of the Approving/Billing Officials' reviews and initiated actions to improve the Purchase Card On-Line System. Thus, we are not making any recommendations in this report.

We appreciate the courtesies extended to the staff. Please direct questions to me at (703) 601-5945.

Lorin T. Venable

Lorin T. Venable, CPA
Acting Assistant Inspector General
DoD Payments and Accounting Operations

Report No. DODIG-2013-061 (Project No. D2012-D000DC-0200.000) March 27, 2013

Results in Brief: Improvements Needed to the Purchase Card On-Line System

What We Did

The Director of Program Development and Implementation, Defense Procurement and Acquisition Policy, Office of the Under Secretary of Defense (Acquisition, Technology, & Logistics), requested this audit. Our objective was to determine whether Department of Defense Approving/Billing Officials adequately reviewed transactions that the Purchase Card On-Line System referred for being at-risk of noncompliance with applicable laws and criteria. In addition, we were to determine whether Department of Defense Approving/Billing Officials adequately reviewed cases in which they identified cards as lost or stolen.

What We Found

Neither we nor the Defense Procurement and Acquisition Policy could use the Purchase Card On-Line System to assess and determine whether DoD Approving/Billing Officials adequately reviewed 32,690 transactions that the system referred (during the period January through June 2012) as being at-risk of noncompliance with applicable laws and criteria, including lost and stolen cards.

This occurred because the automated system:

- did not contain sufficient capability to automatically retrieve and match the case disposition reviews with the universe of the at-risk Government Purchase Card transactions, and
- was unable to archive case history file data, which were maintained in a separate data warehouse.

As a result, the automated system cannot be employed for oversight reviews, such as assessments of Approving/Billing reviews and disposition of at-risk transactions.

Because of the information we requested to conduct the audit, the Defense Procurement and Acquisition Policy became aware the automated system lacked the capability to produce the data needed to complete the assessment of the Approving/Billing Officials' reviews and initiated actions to improve the Purchase Card On-Line System. Thus, we are not making any recommendations in this report.

Management Comments and Our Response

We do not require a written response to this report.

Recommendations Table

Management	Recommendations Requiring Comment
Director of Program Development and Implementation, Defense Procurement and Acquisition Policy (DPAP), Office of the Under Secretary of Defense (Acquisition, Technology & Logistics)	None

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Introduction

Objectives

The Director of Program Development and Implementation, Defense Procurement and Acquisition Policy (DPAP), Office of the Under Secretary of Defense (Acquisition, Technology & Logistics), requested this audit. Our objective was to determine whether DoD Approving/Billing Officials (A/BOs) adequately reviewed transactions that the Purchase Card On-Line System (PCOLS) referred for being at-risk of noncompliance with applicable laws and criteria. In addition, we were to determine whether DoD A/BOs adequately reviewed cases in which they identified cards as lost or stolen. See the Appendix for the scope and methodology related to the objective.

Government Purchase Card Audit Requirements

Section 2784, title 10, United States Code (10 U.S.C. § 2784) establishes the Government Purchase Card (GPC) Program for the Department of Defense. Section 2784 requires the DoD Office of Inspector General to perform periodic audits of the DoD GPC Program to identify the following:

- potentially fraudulent, improper, and abusive use of purchase cards;
- patterns of improper cardholder transactions, such as purchases of prohibited items; and
- categories of purchases that should be made by means other than the GPC to better aggregate purchases and obtain lower prices.

Furthermore, section 2784 requires DoD to use "effective systems, techniques, and technologies to prevent or identify potential fraudulent purchases."

DoD Office Responsible for the Government Purchase Card Program

The DPAP was responsible for oversight and issuing policy for the DoD GPC Program. To assist DoD with internal control and policy compliance, the DPAP awarded a contract for the development of a Data Mining and Risk Assessment (DMRA) applications as part of an automated system, the PCOLS, to examine transactions and identify those that were at-risk of being noncompliant with laws and other criteria. DoD began deployment of the PCOLS Data Mining and Risk Assessment modules during the 2nd Quarter of FY 2009 at one Air Force location, the Defense Contract Management Agency, the Defense Logistics Agency, and the Washington Headquarters Services and that deployment continues. As of February 6, 2013, the PCOLS Data Mining and Risk Assessment module contract ceiling amount was $14.4 million.

The Purchase Card On-Line System

The DPAP developed the PCOLS to improve controls over the use of the GPC program by using a data mining process to identify potentially improper GPC transactions. The PCOLS suite of applications consists of the following modules:

- Enterprise Monitoring and Management of Accounts,
- Authorization, Issuance, and Maintenance,
- Data Mining,
- Risk Assessment, and
- PCOLS Reporting.

The Enterprise Monitoring and Management of Accounts module and the Authorization, Issuance, and Maintenance module were administrative modules. The Data Mining module contained a mining feature that was capable of reviewing 100 percent of the purchase card transactions to provide near real-time transaction monitoring. As part of the function of the DMRA modules, each transaction was assigned a Risk Predictive Model score that identified the risk of impropriety for each transaction. Selected transactions with a high Risk Predictive Model score and randomly selected transactions were flagged for management review.

Under the DMRA operations concept, the primary or the alternate A/BOs, who received a notification e-mail, were to review each of the flagged transactions. The A/BOs were to determine the validity of the transaction. With every flagged transaction, the A/BOs were to answer a minimum of nine questions, such as whether the transaction was a split transaction or a prohibited item. This review process was termed “case review.” After the case review, the A/BO would complete a “case disposition” to categorize the transaction as valid, administrative discrepancy, misuse, suspected fraud, lost, or stolen. Also, the GPC transactions that the DMRA identified as “high risk” transactions were to undergo an independent review by the responsible Agency/Organization Program Coordinator. Recently, DPAP decided to migrate the Risk Assessment functionality to the Reporting Module.

Review of Internal Controls

DoD Instruction 5010.40, “Managers’ Internal Control Program (MICP) Procedures,” July 29, 2010, requires DoD organizations to establish a management internal control program to identify and promptly correct ineffective internal controls and establish internal controls when warranted. We identified an internal control weakness: PCOLS did not contain a sufficient capability to automatically retrieve and match the case dispositions’ reviews with the data on the at-risk GPC transactions. During the audit, the DPAP was taking actions to correct the weaknesses. We will provide a copy of the report to the senior official responsible for internal controls in the DPAP.

Finding. Adequacy of Data Availability

Neither we nor the Defense Procurement and Acquisition Policy could use the PCOLS System to assess and determine whether DoD A/BOs adequately reviewed 32,690 transactions that the system referred (during the period January through June 2012) as being at-risk of noncompliance with applicable laws and criteria, including lost and stolen cards.

This occurred because the PCOLS:

- did not contain sufficient capability to automatically retrieve and match the case disposition reviews with the universe of the at-risk GPC transactions, and

- was unable to archive case history file data, which were maintained in a separate data warehouse.

As a result, the automated system could not be employed for oversight reviews, such as assessments of A/BOs reviews and dispositions of at-risk transactions.

Audit Request

On August 24, 2012, the Director of Program Development and Implementation, DPAP, Office of the Under Secretary of Defense (Acquisition, Technology & Logistics), requested this audit, and we announced the audit on September 5, 2012.

Complete Universe Data Availability Was Limited

Although the PCOLS provided the Military Departments and Defense Agencies with another oversight capability not previously available to everyone, the PCOLS capability to allow overall assessments was limited. The PCOLS provided a data mining tool that identified transactions that were potentially noncompliant with applicable laws and criteria. However, since the PCOLS was deployed in 2009, it did not have the ability to provide the information that was needed to resolve whether approving officials adequately reviewed the transactions that the PCOLS referred as being at-risk of noncompliance, which was also the primary objective of this management-requested audit.

The PCOLS provided a data mining tool that identified transactions that were potentially noncompliant with applicable laws and criteria

On October 1, 2012, the DPAP DMRA application provided 148,488 cases for management review during the period of January 1, 2012, through June 30, 2012. The 148,488 universe included 32,690 cases that A/BOs reviewed and closed. However, the remaining 115,798 cases were either still in the review process or were related to Military Departments and DoD Agencies not using PCOLS. For example, the Army and Navy were not fully using PCOLS for the review of at-risk transactions; however, their transactions were included in the data received from the banks that provide DoD GPCs.

When we requested information to conduct the audit, the DPAP personnel became aware the DMRA database did not contain sufficient capability to automatically retrieve and match the case disposition reviews with the universe of the at-risk GPC transactions. For management to perform an assessment of the A/BOs' review results after case disposition closure, the DMRA needed to match two sets of data. The DMRA needed to match the following:

DMRA database did not contain sufficient capability to automatically retrieve and match the case disposition reviews with the universe of the at-risk GPC transactions

- transactions referred to the A/BOs for review to the responses that the A/BOs provided regarding the case, and
- specific information that identified the transactions' cardholders, and other data, such as locations, vendors' data, and time frames for the review process.

Furthermore, as a result of the inability to automatically match the two sets of data, the dollar amount and other summary data that the A/BOs' cases represented were not able to be retrieved in an efficient and timely manner. On October 22, 2012, DPAP personnel admitted that the system could not automatically produce the information requested and that obtaining this information would require a significant manual effort.

Historical PCOLS Data Were Not Being Archived in the Data Warehouse

The DPAP was not aware that PCOLS Data were not being archived in a data warehouse before our request for information to support the audit objective. DPAP personnel stated, "We were under the impression that the requested data would be available from the PCOLS Reporting Data Warehouse. Unfortunately, what we found out is that it is not." DPAP personnel also stated, "DPAP was unaware of deficiencies in the data warehouse when the audit commenced. The data existed but was [sic] not readily available." On January 8, 2013, DPAP personnel through e-mail explained the challenges of obtaining PCOLS data to support the audit:

PCOLS Data were not being archived in a data warehouse

> When DPAP requested the audit in August of 2012, the expectations were that PCPO[1] would be able to provide the data required for the audit through ad hoc queries run against the PCOLS data warehouse. PCPO tasked DMDC [Defense Manpower Data Center] with performing these ad hoc queries and the data made available. DMDC performed the queries and supplied the extracted data to PCPO, which, was [sic] incomplete for the scope of this audit. It is important to note that all of the data from [Data Mining] activity is [sic] transferred to the DMDC. Heretofore, only the data required for PCOLS Reporting purposes has [sic] been loaded into the PCOLS data warehouse. It was not until after close examination of the extracted data did PCPO

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[1] The Purchase Card Policy Office (PCPO) is part of the Program Development and Implementation Directorate, Defense Procurement and Acquisition Policy, Office of the Under Secretary of Defense (Acquisition, Technology & Logistics) that requested the audit.

> become aware that all of the historical data was [sic] not being stored in the data warehouse. The elements of this historical data were the cause of the audit data being incomplete.

In addition, DPAP personnel stated:

> We determined that some of the data fields that needed to be queried were not permanently stored in the data warehouse. These required fields are summarily extracted to worktables, calculations made to summarize the data, and then the work tables deleted. The result was that the some [sic] of the historical data was [sic] not retained in the data warehouse and subsequently not available for immediate retrieval.

Defense Procurement and Acquisition Policy Improving the Purchase Card On-Line System To Permit Added Oversight

DPAP personnel indicated they were making improvements that will result in retention of the data necessary to assess A/BOs performance and also permit the PCOLS to be used to identify trends, develop metrics, and focus on problem areas. Specifically, on January 8, 2013, DPAP personnel e-mailed the following:

> In order to ensure the ability to re-engage with your Office to complete this audit when it is appropriate, and ensure efficient use of audit resources, DPAP has taken actions to ensure a higher degree of audit preparedness with respect to data accessibility and system architecture in the Data Mining application suite.… We expect that this data to be loaded into production by the end of FY 2013 Q2 and available for adhoc [sic] reporting. We expect that audit specific reports to be available in production by the end of FY 2013 Q3.

Other Events Affecting Data Availability

The DPAP personnel subsequently indicated that they were making changes to the PCOLS that would further affect the availability of data. Specifically, the DPAP completed moving the host for the PCOLS Data Mining module from a contractor's site to the Defense Systems Information Agency Enclave (a DoD environment) on January 26, 2013. The DPAP expected the move would add to the delay in obtaining data.

The DPAP personnel expected that the move to the Defense Systems Information Agency Enclave would have a positive effect on future programming and maintenance of the Data Mining application. Additionally, the DPAP expected the move would instill tighter controls related to software configuration management and overall database support once the application was within the Defense Systems Information Agency environment. Both these factors were expected to improve software quality and overall application quality.

DPAP personnel expected that the move to the Defense Systems Information Agency Enclave would have a positive effect

Summary

Until DPAP personnel effectively complete their efforts to develop the methodology that will allow a complete matching of case disposition information with specific GPC transactions, they will not have the ability to perform an effective assessment of the A/BOs review process. Additionally, any audit reviews will be limited and the PCOLS cannot be used to the full potential for managing the GPC program.

DPAP personnel recognized the deficiencies that they had in the automated system that were preventing them from obtaining the data needed for effective oversight and initiated the actions mentioned above to improve the PCOLS. As a result of management actions to be taken in the 2nd and 3rd Quarters of FY 2013, we are not making recommendations in this report.

Appendix: Scope and Methodology

We conducted this performance audit from September 2012 through March 2013 in accordance with Generally Accepted Government Auditing Standards. However, the DPAP was unable to provide sufficient information to allow for selecting of an audit sample to review the case disposition process. The standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for the findings and conclusions we formed based on our audit objectives.

To determine whether A/BOs adequately reviewed transactions that the PCOLS referred for being at-risk of noncompliance with applicable laws and criteria, we interviewed DPAP personnel concerning the PCOLS case disposition process and reviewed applicable criteria. Additionally, we requested the DPAP to provide the January 1, 2012, through June 30, 2012, universe of at-risk transactions referred by the PCOLS to the A/BOs to select a sample to review. On October 1, 2012, DPAP provided 148,488 cases created by the PCOLS to be sent to A/BOs for review during the period of January 1, 2012, through June 30, 2012. The 148,488 cases included 32,690 cases that the A/BOs had reviewed and closed. However, the remaining 115,798 cases were either still in the review process or were related to Military Departments and DoD Agencies not utilizing PCOLS. For example, the Army and Navy were not fully utilizing PCOLS for the review of at-risk transactions; however, their transactions were included in the data PCOLS received from the banks and at-risk cases were created in PCOLS.

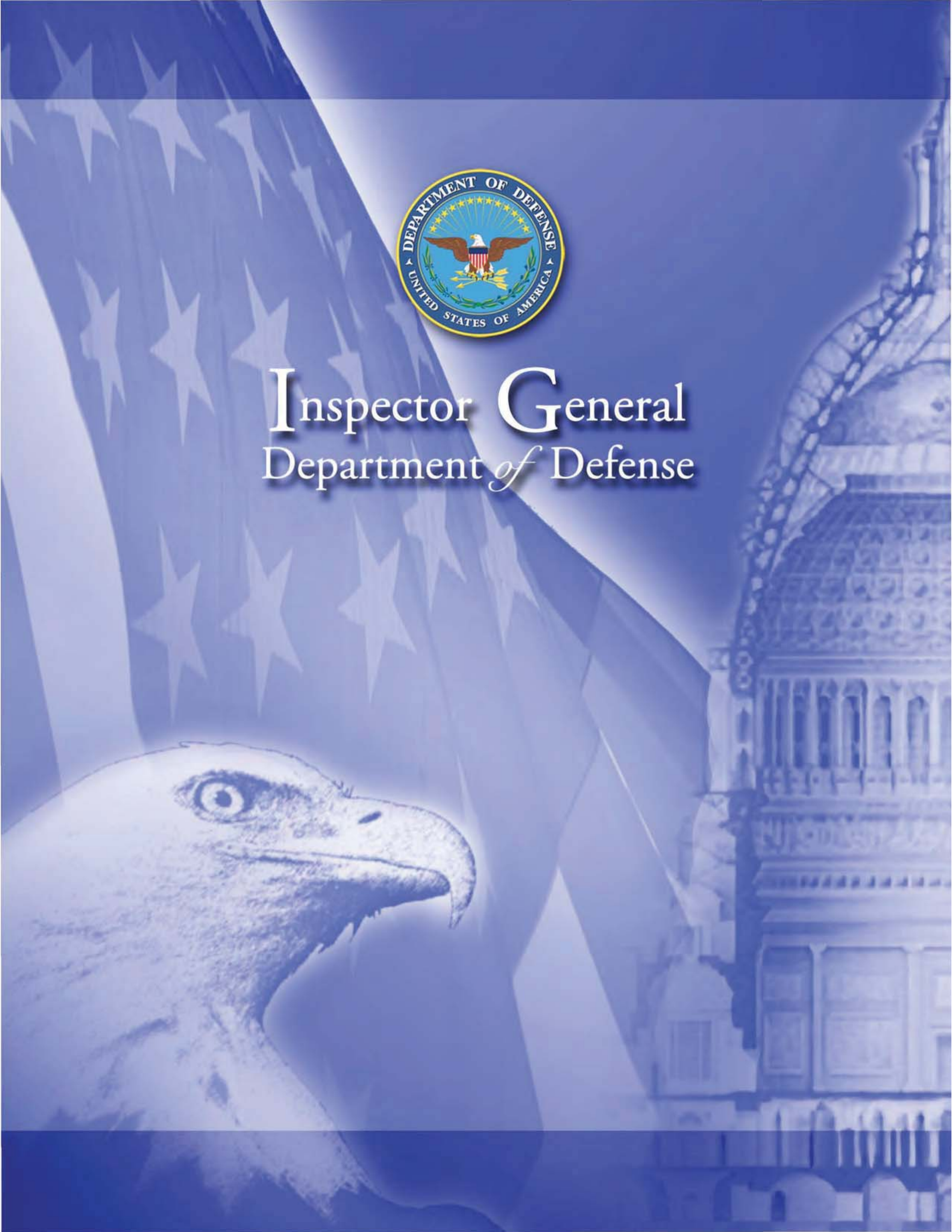
However, because of the PCOLS's system limitations, the DPAP was unable to provide sufficient information for us to review the 32,690 cases. The PCOLS did not have the ability to automatically match the necessary data to conduct the audit including A/BOs' case disposition results matched to information that identified the specific transactions, card holders, locations, vendors' data, and time frames for the review process.

Use of Computer-Processed Data

We obtained computer-processed data from the DPAP in support of the audit objective. However, the PCOLS data did not contain the necessary information to conduct the audit. The PCOLS did not contain A/BOs' case disposition results matched to information that identified the specific transactions, card holders, locations, vendors' data, and time frames for the review process. As a result, computer-processed data were not used to conduct this audit.

Prior Coverage

No prior coverage has been conducted on the use of the Purchase Card On-Line System to assess and determine whether DoD A/BOs adequately reviewed transactions referred to them for being at-risk of noncompliance with applicable laws and criteria during the last 5 years.



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